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524 Phytostabilization of a metal contaminated sandy soil. I: Influence of compost and/or inorganic metal immobilizing soil amendments on phytotoxicity and plant availability of metals
A. Ruttens, M. Mench, J.V. Colpaert, J. Boisson, R. Carleer, J. Vangronsveld

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533 Phytostabilization of a metal contaminated sandy soil. II: Influence of compost and/or inorganic metal immobilizing soil amendments on metal leaching
A. Ruttens, J.V. Colpaert, M. Mench, J. Boisson, R. Carleer, J. Vangronsveld

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540 Effects of hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) metabolites on cricket (*Acheta domesticus*) survival and reproductive success
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554 Characterization of polychlorinated dibenzo-*p*-dioxins and dibenzofurans in different particle size fractions of marine sediments
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562 Prediction of mono- and polycyclic aromatic hydrocarbon degradation in spiked soils using cyclodextrin extraction
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596 Modelling changes in forest soil chemistry at 16 Swedish coniferous forest sites following deposition reduction
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610 Increased nitrogen in runoff and soil following 13 years of experimentally increased nitrogen deposition to a coniferous-forested catchment at Gårdsjön, Sweden
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621 Toxicity of water and sediment in a small urban river (Store Vejleå, Denmark)
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632 **Horizontal distribution of steroid estrogens in surface sediments in Tokyo Bay**
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639 **Bioaccumulation of heavy metals in the earthworms *Lumbricus rubellus* and *Aporrectodea caliginosa* in relation to total and available metal concentrations in field soils**
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647 **Genotoxic effect of copper on salivary gland polytene chromosomes of *Chironomus riparius* Meigen 1804 (Diptera, Chironomidae)**
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665 **Effect of acid rain on building material of the El Tajín archaeological zone in Veracruz, Mexico**
H. Bravo A., R. Soto A., R. Sosa E., P. Sánchez A., A.L. Alarcón J., J. Kahl, J. Ruíz B.

The calcium carbonate content in a limestone sample from the El Tajin archaeological zone was determined, and a dissolution mechanism on this material by acid rain was proposed.

661 **Chronic toxicity of sediment-associated linear alkylbenzene sulphonates (LAS) to freshwater benthic organisms**
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669 **Mechanisms of competitive adsorption of Pb, Cu, and Cd on peat**
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681 **Uptake and accumulation of lead by plants from the Bo Ngam lead mine area in Thailand**
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Uptake and accumulation of lead by plants.

689 **Influences of wetland plants on weathered acidic mine tailings**
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695 **Influence of a heavy rainfall event on the leaching of [^{14}C]isoproturon and its degradation products in outdoor lysimeters**
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716 **Relationships between the abnormalities of the male reproductive organs and the accumulation of phenol compounds in the striped field mouse, *Apodemus agrarius*, inhabiting Korea**
J.-H. Kim, M.-H. Yoon, Y. Ueda, K. Honda, B.-Y. Min

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726 **Metals leachability from medical waste incinerator fly ash: A case study on particle size comparison**
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736 **Genotypic variations in the accumulation of Cd, Cu, Pb and Zn exhibited by six commonly grown vegetables**
P.D. Alexander, B.J. Alloway, A.M. Dourado

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746 Degradation and toxicity of phenyltin compounds in soil
G.I. Paton, W. Cheewasedtham, I.L. Marr, J.J.C. Dawson

Triphenyltin degradative metabolites cause toxic responses to biosensors.

752 Sorption, degradation and mobility of microcystins in Chinese agriculture soils: risk assessment for groundwater protection
W. Chen, L. Song, N. Gan, L. Li

The use of cyanobacterial blooms as plant fertilizer is likely to be unsafe in soils.

759 Acute and chronic activity of perchlorate and hexavalent chromium contamination on the survival and development of *Culex quinquefasciatus* Say (Diptera: Culicidae)
M.A. Sorensen, P.D. Jensen, W.E. Walton, J.T. Trumble

While pollution with hexavalent chromium may adversely affect Culex quinquefasciatus larvae, levels of perchlorate currently in the environment will not impact these insects.

765 Influence of bacteria on Pb and Zn speciation, mobility and bioavailability in soil: A laboratory study
S.C. Wu, Y.M. Luo, K.C. Cheung, M.H. Wong

Influence of bacterial activities on heavy metal is two-edged.

774 Seasonal and spatial patterns of metals at a restored copper mine site. I. Stream copper and zinc
D.G. Bambic, C.N. Alpers, P.G. Green, E. Fanelli, W.K. Silk

Seasonal hydrology and benthic sediments control copper and zinc concentrations in a stream through a restored mine site.

783 Seasonal and spatial patterns of metals at a restored copper mine site II. Copper in riparian soils and *Bromus carinatus* shoots
W.K. Silk, D.G. Bambic, R.E. O'Dell, P.G. Green

Near a stream with acid mine drainage, soils have a steep gradient in acidity and bioavailable Cu, while plant shoots have Cu strongly dependent on developmental stage.

790 Levels of trace elements in green turtle eggs collected from Hong Kong: Evidence of risks due to selenium and nickel
J.C.W. Lam, S. Tanabe, S.K.F. Chan, M.H.W. Lam, M. Martin, P.K.S. Lam

Concentrations of selenium and nickel in green turtle eggs from Hong Kong might pose some risks to the turtles.

802 Effect of reactive media composition and co-contaminants on sulfur-based autotrophic denitrification
H.S. Moon, S.W. Chang, K. Nam, J. Choe, J.Y. Kim

The effect of co-contaminants on nitrate removal in a biological PRB system.

808 Does lipophilicity of toxic compounds determine effects on drought tolerance of the soil collembolan *Folsomia candida*?
G. Skovlund, C. Damgaard, M. Bayley, M. Holmstrup

Toxic stress may reduce drought tolerance of Collembola.

816 Use of bone meal amendments to immobilise Pb, Zn and Cd in soil: A leaching column study
I.R. Sneddon, M. Orueetxebarria, M.E. Hodson, P.F. Schofield, E. Valsami-Jones

An extended (18 months) leaching column study of metal (Pb, Zn, Cd) immobilisation using bone meal as a source of phosphate, demonstrating positive results.

826 Spatial variation in atmospheric nitrogen deposition on low canopy vegetation
R. Verhagen, R. van Diggelen

Areas with low canopy vegetation are affected over much larger distances by nitrogen deposition than woodlands.

833 Behavioral changes in fish exposed to phytoestrogens
E.D. Clotfelter, A.C. Rodriguez

Environmentally relevant concentrations of phytoestrogens reduce aggressive behavior in fish.

840 Photodegradation of bisphenol A in simulated lake water containing algae, humic acid and ferric ions
Z. Peng, F. Wu, N. Deng

Algae, humic acid and ferric ions can induce the photodegradation of bisphenol A in an aqueous environment.

847 Metal concentrations in edible mushrooms following municipal sludge application on forest land
M. Benbrahim, L. Denaix, A.-L. Thomas, J. Balet, J.-M. Carnus

Trace element concentrations in edible mushrooms were slightly modified after municipal sludge application in pine plantation forest.

855 Arsenic in sediments from the southeastern Baltic Sea
G. Garnaga, E. Wyse, S. Azemard, A. Stankevičius, S. de Mora

Arsenic concentrations in sediments near chemical weapons dumpsites were only slightly elevated.

862 EDDS and EDTA-enhanced phytoextraction of metals from artificially contaminated soil and residual effects of chelant compounds
C. Luo, Z. Shen, L. Lou, X. Li

Chrysanthemum coronarium L. was the most sensitive species to the application of chelants, and EDDS biodegrades much more rapidly than EDTA in soil.

872 An integrated numerical and physical modeling system for an enhanced in situ bioremediation process
Y.F. Huang, G.H. Huang, G.Q. Wang, Q.G. Lin, A. Chakma

An integrated modeling system was developed to enhance in situ bioremediation processes.

886 Assessment of intermittent trace element pollution by moss bags
M. Cesa, A. Bizzotto, C. Ferraro, F. Fumagalli, P.L. Nimis

Transplanted bryophytes are able to detect accidental trace element pollution in freshwaters of industrial areas.

893 Environmental pollutants in endangered vs. increasing subspecies of the lesser black-backed gull on the Norwegian Coast
J.O. Bustnes, M. Helberg, K.-B. Strann, J.U. Skaare

DDE and ß-HCH residues were higher in an endangered compared to an increasing subspecies of lesser black-backed gulls in Norway.

902 Simultaneous presence of DDT and pyrethroid residues in human breast milk from a malaria endemic area in South Africa
H. Bouwman, B. Sereda, H.M. Meinhardt

The simultaneous presence of DDT and pyrethroid residues in breast milk raises the question of infant exposure and safety.

918 Influence of solution acidity and $CaCl_2$ concentration on the removal of heavy metals from metal-contaminated rice soils
S. Kuo, M.S. Lai, C.W. Lin

Release edges and threshold pH values for heavy metals determine how effective dilute HCl in removing the metals from metal-contaminated rice soils.

926 Biodegradation studies of selected priority acidic pesticides and diclofenac in different bioreactors
S. González, J. Müller, M. Petrovic, D. Barceló, T.P. Knepper

Biodegradation rate of selected acidic pesticides and pharmaceuticals depends on adaptation.

933 Quantifying the contribution of nitrification and denitrification to the nitrous oxide flux using ^{15}N tracers
O. Mathieu, C. Hénault, J. Lévêque, E. Baujard, M.-J. Milloux, F. Andreux

Identifying the mechanisms responsible for N_2O emission in soils could help define potential mitigation methods.

941 Diagnostic indicators of elevated nitrogen deposition
C. Pitcairn, D. Fowler, I. Leith, L. Sheppard, S. Tang, M. Sutton, D. Famulari

Moss tissue N is a good indicator of enhanced N deposition at sites close to point sources of NH_3, but of limited diagnostic value in wet deposition dominated areas.

951 Polybrominated diphenyl ethers in surface sediments of the Yangtze River Delta: Levels, distribution and potential hydrodynamic influence
S.-J. Chen, X.-J. Gao, B.-X. Mai, Z.-M. Chen, X.-J. Luo, G.-Y. Sheng, J.-M. Fu, E.Y. Zeng

This study discussed the possible effects of hydrodynamic conditions on the distribution of PBDEs in estuarine and marine boundary.

958 Measurement of trifluralin volatilization in the field: Relation to soil residue and effect of soil incorporation
C. Bedos, M.F. Rousseau-Djabri, B. Gabrielle, D. Flura, B. Durand, E. Barriuso, P. Cellier

Losses by volatilization contribute significantly to soil dissipation of the herbicide trifluralin before its soil incorporation.

967 Accumulation of nutrients and heavy metals in *Phragmites australis* (Cav.) Trin. ex Steudel and *Bolboschoenus maritimus* (L.) Palla in a constructed wetland of the Venice lagoon watershed
C. Bragato, H. Brix, M. Malagoli

Heavy metal shoot concentration in Phragmites australis and Bolboschoenus maritimus increased significantly at the end of the growing season.

976 Vegetational and mycorrhizal successions at a metal polluted site: Indications for the direction of phytostabilisation?
M. Regvar, K. Vogel-Mikuš, N. Kugonič, B. Turk, F. Batič

Sowing the seeds of predominant moderately mycorrhizal grass species for the direction of secondary succession at a heavy metal polluted site is questioned.

985 Distribution and sources of polycyclic aromatic hydrocarbons in the middle and lower reaches of the Yellow River, China
G. Li, X. Xia, Z. Yang, R. Wang, N. Voulvoulis

Sediments could act as a sink/source for PAHs in different sections of the Yellow River, in which processes of suspended particles play an important role.

994 Interpreting time trends and biomagnification of PCBs in the Baltic region using the equilibrium lipid partitioning approach
E. Nfon, I.T. Cousins

The equilibrium lipid partitioning approach is applied to a large Baltic database of PCB concentrations in abiotic and biota media to investigate time trends and biomagnification.

1001 Heavy metals contents in agricultural topsoils in the Ebro basin (Spain). Application of the multivariate geoestatistical methods to study spatial variations
J.A. Rodríguez Martín, M.L. Arias, J.M. Grau Corbí

Geostatistical analyses showed definite association of metals with soil parent materials.

1013 Evaluating fugacity models for trace components in landfill gas
S. Shafi, A. Sweetman, R.L. Hough, R. Smith, A. Rosevear, S.J.T. Pollard

Fugacity for trace component in landfill gas.

1024 Polybrominated diphenyl ethers in South China maternal and fetal blood and breast milk
X. Bi, W. Qu, G. Sheng, W. Zhang, B. Mai, D. Chen, L. Yu, J. Fu

A survey of PBDE concentrations in human blood and milk helps identify background concentrations in South China population.

1031 Source and persistence of pesticides in a semi-confined chalk aquifer of southeast England
D.J. Lapworth, D.C. Gooddy

Pesticides and their metabolites from amenity use pose a long-term threat to groundwater quality.

1045 Distribution and temporal changes of lead in the surface seawater in the western Pacific and adjacent seas derived from coral skeletons
M. Inoue, A. Hata, A. Suzuki, M. Nohara, N. Shikazono, W.W.-S. Yim, W.S. Hantoro, S. Donghuai, H. Kawahata

Temporal and spatial variations of Pb in the western Pacific were studied using coral skeletons.

1053 Maternal transfer of organohalogen contaminants and metabolites to eggs of Arctic-breeding glaucous gulls
J. Verreault, R.A. Villa, G.W. Gabrielsen, J.U. Skaare, R.J. Letcher

Concentrations of organohalogen contaminants and metabolites in eggs of glaucous gulls do not fluctuate with the laying order in a three-egg clutch.